



UNITED STATES DEPARTMENT OF EDUCATION  
OFFICE OF PLANNING, EVALUATION AND POLICY DEVELOPMENT

Marlene H. Dortch, Secretary  
Federal Communications Commission  
Office of the Secretary  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

June 7, 2019

**Re: Notice of *Ex Parte*  
Transforming the 2.5 GHz Band, WT Docket No. 18-120**

Dear Secretary Dortch,

The U.S. Department of Education (Department) appreciates the opportunity to file the following ex parte letter in response to the Federal Communications Commission's (Commission) Notice of Proposed Rulemaking (EBS NPRM) in the above-captioned proceeding.<sup>1</sup> The Department welcomes the Commission's decision to modernize rules governing the Educational Broadband Service (EBS) spectrum and to provide educational institutions and other community education partners the opportunity to acquire new EBS licenses. The Department's interest in this matter is tied to its mission to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access. We serve students across the continuum of learning from early childhood and K-12 education through postsecondary, career and technical, and adult education.

The Department strongly encourages the Commission to maintain and modernize the current educational priority of the EBS spectrum by keeping the current eligibility requirements for EBS licenses, modernizing the educational use requirement, and issuing new EBS licenses using local priority filing windows. These measures will ensure that this valuable public resource can be leveraged by local communities to implement solutions to the "homework gap,"<sup>2</sup> close the digital divide in rural areas, and provide access to affordable broadband.

Historically, a learner's educational opportunities have been limited by the resources found within the walls of a school; however, with a high-speed broadband connection, learners can access resources and expertise anywhere in the world. For example:

- A student interested in learning computer science can take the course online if their school lacks the budget or a faculty member with the appropriate skills to teach the course;

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<sup>1</sup> Transforming the 2.5 GHz Band, Notice of Proposed Rulemaking, FCC 18-59, WT Docket No. 18-120 (rel. May 10, 2018) ("EBS NPRM").

<sup>2</sup> The "homework gap" refers to the disconnect that occurs when students are assigned homework that requires internet access, but do not have broadband at home.

- Learners planning for college and careers can access high-quality online mentoring and advising programs where school resources or geography present challenges to obtaining sufficient face-to-face mentoring;
- A school without robust science facilities can offer virtual chemistry, biology, anatomy, and physics labs—providing access to new learning experiences; and,
- Teachers can integrate high-fidelity, online simulations of real-world challenges into lessons so students can collaborate to master skills in virtual settings.<sup>3</sup>

Access to broadband for students at school and at home is critical to achieving the Department’s mission of fostering educational excellence and ensuring equal access; however, research shows that lack of high-speed broadband is disproportionately common in rural areas, tribal lands, and other under-resourced communities.

A 2018 study by the Department’s Institute of Education Sciences (IES) shows that geography directly impacts home internet access and students in “remote rural” areas had more limited home internet access than students in suburbs, cities or towns. The study also shows additional gaps among students of different poverty levels and racial/ethnic groups. For example, in remote rural areas the percentages of students who have either no internet access or only dial-up access at home were higher for Black (41 percent) and Hispanic students (26 percent) than for White (13 percent) and Asian students (11 percent).<sup>4</sup>

Due to remote geographic locations and low population densities, rural schools and communities often face issues with broadband access and affordability. Internet Service Providers (ISPs) often choose not to build and maintain expensive fiber networks to these remote locations due to the limited return on investment. As a result, these communities remain unconnected or under connected with high costs for limited bandwidth.

EBS spectrum is a valuable tool available to educational institutions to close the homework gap by providing access to affordable broadband to their students and broader communities. Because the issuing of new EBS licenses has been frozen for almost 20 years, EBS frequencies remain unlicensed and unused in over half of the United States – mostly west of the Mississippi River in rural areas where access to high-speed broadband is most limited.<sup>5</sup> There are several examples of educational entities self-deploying or leasing EBS spectrum to provide low-cost or free mobile internet service to schools and low-income households.

In 2008, Northern Michigan University (NMU) launched an effort to build a self-deployed wireless network using EBS spectrum to connect their 9,000 students and 1,100 faculty off-campus. The initial build-out, made possible by a waiver from the Commission, was soon expanded to connect K-12 schools and offer low-cost, high-speed, uncapped internet access to twenty communities in the Upper Peninsula of Michigan. In

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<sup>3</sup> U.S. Department of Education, Office of Educational Technology. (2017). *National Education Technology Plan*. <https://tech.ed.gov/files/2017/01/NETP17.pdf>.

<sup>4</sup> U.S. Department of Education, National Center for Education Statistics. (2018). *Student Access to Digital Learning Resources Outside of the Classroom (NCES 2017-098)*, Executive Summary.

<sup>5</sup> EBS NPRM, para. 5.

addition, NMU provides access to online career and professional development courses through its network.<sup>6</sup>

In Red Cliff, Colorado the Eagle County School District's EBS license was leased to a local wireless internet service provider to build a fixed wireless system. Prior to the leasing agreement, residents in Red Cliff were paying between \$120 to \$160 per month for satellite internet access that performed poorly in bad weather. Today, residents subscribed to the fixed wireless service get faster, reliable and more affordable internet access for \$70 per month and parents no longer have to drive 20 miles down winding mountain roads in search of broadband so their children can complete their online homework assignments.<sup>7</sup>

**I. The Commission should maintain current eligibility requirements for EBS Licenses and not allow EBS licensees (current or new) to assign or transfer control of their licenses to entities that are not EBS-eligible.<sup>8</sup>**

The Department urges the Commission to maintain current eligibility requirements for EBS licenses to ensure the educational and public interest nature of the EBS spectrum is preserved.<sup>9</sup>

It is important to note that maintaining current eligibility requirements does not preclude access to the EBS spectrum for commercial providers. EBS licensees can choose to self-deploy or lease their excess spectrum while maintaining provisions for educational use.<sup>10</sup> The above examples from Northern Michigan University (self-deployed) and Red Cliff (leased) demonstrate that both methods can provide substantial benefit to closing the homework gap and providing access to affordable broadband. These public-private partnerships promote efficient use by commercial providers while also benefiting educational institutions.

The Department is concerned that allowing EBS licensees to assign or transfer their license to a non-EBS eligible entity will, over time, reduce the number of educational licensees and diminish

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<sup>6</sup> Erickson, Fritz J. "Providing Broadband to Rural America: How Educators with EBS Can Make the Difference." *Benton Digital Beat*. January 28, 2019. <https://www.benton.org/blog/providing-broadband-rural-america-how-educators-ebs-can-make-difference>.

<sup>7</sup> Colwell, Mark, Alexander Schumann, and Ayman Shakfa. "The Social Impact of Broadband: A Case Study of Red Cliff, Colorado." *Interdisciplinary Telecommunications Program, University of Colorado-Boulder*. April 9, 2018. [http://nwccog.org/wp-content/uploads/2018/05/The-Social-Impact-of-Broadband-Colwell-Schumann-Shakfa\\_FINAL3.pdf](http://nwccog.org/wp-content/uploads/2018/05/The-Social-Impact-of-Broadband-Colwell-Schumann-Shakfa_FINAL3.pdf).

<sup>8</sup> In this letter, the terms "EBS licensees," "eligible EBS licensees," "EBS-eligible entities," and "eligible EBS entities" are used interchangeably and refer the education, government and non-profit entities eligible for EBS licenses under current EBS eligibility requirements outlined in 47 CFR § 27.1201(a).

<sup>9</sup> EBS NPRM, para. 3 ("Currently, eligibility to hold an EBS license is limited to (1) accredited public and private educational institutions, (2) governmental organizations engaged in the formal education of students, and (3) non-profit organizations whose purposes are educational and include providing educational and instructional materials to accredited institutions and governmental organizations.") [Footnotes omitted]

<sup>10</sup> EBS NPRM, para. 4 ("Since 1983 the Commission has allowed EBS licensees to lease their excess capacity to commercial providers, but it has required EBS licensees to retain five percent of their capacity for educational use, and it further has required that they use each channel at least 20 hours per week for educational purposes.") [Footnotes omitted]

the educational use of this spectrum.<sup>11</sup> A smaller pool of educational licensees will benefit commercial entities who can offer favorable terms to gain access to EBS spectrum or pressure EBS licensees to sell their licenses by limiting the educational services offered under the terms of their lease. Ultimately, this will result in a failure to meet the needs of students in unserved or underserved communities.

Maintaining current EBS eligibility requirements and preventing the reassignment or transfer of licenses to non-EBS eligible entities will keep educational institutions in the driver's seat and ensure that the spectrum will be developed while prioritizing the needs of the students, families, and the local community.

## **II. The Commission should modernize, not eliminate the educational use requirement.**

Licensing of unused EBS spectrum has remained largely frozen since 1995, with the exception of some waivers granted, primarily to educators with a local presence in the communities that they wished to serve.<sup>12</sup> This along with the advancements in technology, declining cost of EBS spectrum build-out costs, changes in market conditions, and new models of digital learning make it premature to eliminate the 2.5 GHz band's educational focus. Articulating updated educational use requirements will set a vision for how EBS licensees and lessees can deploy the spectrum to meet local educational needs.

Rather than remove the educational use requirement, the Commission should update the requirement to reflect effective, modern digital learning practices and shift the focus of what is considered an educational use from the amount of content delivered to who and how many people are being served. This includes a continued focus on bridging the digital divide and the homework gap and broadening the definition of educational programs to include those that take place outside of formal, accredited institutions, like workforce development or adult education programs.

Several commenters proposed ideas for how the educational use requirement might be updated and measured, including: adopting a deployment-based requirement for leased EBS spectrum based on the actual capacity of the spectrum lessee's network;<sup>13</sup> measuring not only amounts of educational content delivered through the spectrum, but examining populations, such as students, being served by it;<sup>14</sup> or requiring the provision of uncapped broadband service at an affordable

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<sup>11</sup> EBS NPRM, para. 20 ("We propose to provide EBS licensees with the flexibility to assign or transfer control of their licenses to entities that are not EBS-eligible. Specifically, we propose to eliminate the limit on what entities can hold EBS licenses (rule 27.1201) and make clear that licensees may assign or transfer control of their licenses to other entities.") [Footnotes omitted]

<sup>12</sup> EBS NPRM, para. 40.

<sup>13</sup> Colwell, Mark and John Schwartz. "Comments of Voqal in Response to Transforming the 2.5 GHz Band, Notice of Proposed Rulemaking." August 8, 2018, p. 15.

[https://ecfsapi.fcc.gov/file/10809748206409/Voqal%20Comments%20\(8-8-2018\).pdf](https://ecfsapi.fcc.gov/file/10809748206409/Voqal%20Comments%20(8-8-2018).pdf).

<sup>14</sup> Consortium for School Networking. "Comments of CoSN on Proposed Service Rules on the 2.5 GHz Band." August 8, 2018, p. 4.

<https://ecfsapi.fcc.gov/file/108082344809292/CoSN%20EBS%20Comments%20Final%20.pdf>.

price to low-income consumers.<sup>15</sup> This is evidence that further discussion of how to modernize the educational use requirement is warranted, and the Department would welcome participation in such a discussion.

### **III. The Commission should rationalize EBS license service areas by aligning with county boundaries and should encourage consortium applications to resolve mutually exclusive applications.**

The Department supports the Commission's proposal to automatically rationalize, or convert, the Geographic Service Areas (GSAs) of existing licenses and new licenses from circular, 35-mile radius GSAs to a defined geographic area.<sup>16</sup> In the NPRM, the Commission notes that, "a county-based expansion would allow county-based school districts to better provide services to the students within their districts, and in many cases, to provide services to those students at home, as well as on school premises."<sup>17</sup>

The Department agrees with several fellow commenters that a county-based approach to rationalization is preferable to a census tract approach because it will ensure consistency of service across an entire county; however, we recognize that there are a variety of approaches for establishing school district boundaries, and in some states, school districts extend beyond a single county's borders.<sup>18</sup> Therefore, the Department suggests that before a final determination is made on the method for rationalizing GSAs, the Commission conduct an analysis of school district and county boundary alignment in the states with the most unlicensed EBS spectrum. The Commission might also consider a state-by-state approach to determining the appropriate method for rationalization in order to be responsive to states where school district boundaries and county boundaries do not align. This will help ensure that an eligible EBS licensee can deliver broadband to every student in their district.

The Department also agrees with several commenters that the Commission should avoid auctions in cases where multiple eligible EBS entities have applied for a new license in the same service area. Instead, the Commission should encourage applicants to work collaboratively through a single consortium application to serve the same service area.<sup>19</sup> Requiring auctions to settle instances of overlapping applications might be prohibitively expensive to states and districts with limited budgets.

### **IV. The Commission should issue remaining EBS licenses using the local priority filing windows for tribes and all EBS-eligible entities.**

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<sup>15</sup> Windhausen, John, Jr. "Comments of the Schools, Health & Libraries Broadband (SHLB) Coalition." August 8, 2018, p. 5. <https://ecfsapi.fcc.gov/file/108090494600796/SHLB%20EBS%20Comments%20-%20Final.pdf>.

<sup>16</sup> EBS NPRM, paras. 11, 17.

<sup>17</sup> EBS NPRM, para. 32.

<sup>18</sup> Blomstedt, Matt, Mark Leonard, and Ed Toner. "Initial Joint Comments of the Nebraska Department of Education (NDE), Nebraska Educational Television (NET), and the State of Nebraska Office of the Chief Information Officer (OCIO)." August 8, 2018, p. 2. [https://ecfsapi.fcc.gov/file/108082718222025/FCC-EBS-NPRM\\_Nebraska\\_20180808.pdf](https://ecfsapi.fcc.gov/file/108082718222025/FCC-EBS-NPRM_Nebraska_20180808.pdf).

<sup>19</sup> Consortium for School Networking, *Comments of CoSN*, p. 6.

When the Commission reopened the application for new 2.5 GHz licenses in 1985, it noted that local applicants, “convincingly demonstrated . . . to be the best authorities for evaluating their educational needs and the needs of others they propose to serve in their communities,” to “best understand the educational needs . . . of their communities,” and to “act most responsibly in designing and developing [2.5 GHz] systems.”<sup>20</sup> Further, the majority of waiver requests during the current filing freeze have come from educators with a local presence in the communities that they wish to serve.<sup>21</sup>

The Department agrees that local applicants should be prioritized for new licenses and urges the Commission to issue remaining EBS licenses using the local priority windows for tribes and all EBS-eligible entities.

To promote consistency, the Department suggests that the third local priority filing window include all entities currently eligible to hold an EBS license, not just new educational entities. This would expand the third local priority filing window to include (1) accredited public and private educational institutions, (2) governmental organizations engaged in the formal education of students, and (3) non-profit organizations whose purposes are educational and include providing educational and instructional materials to accredited institutions and governmental organizations. The Department also suggests allowing current EBS license holders to participate in the third local priority filing window as long as they can demonstrate a local presence. Finally, the Department suggests the Commission consider allowing State Educational Agencies to apply for new EBS licenses on behalf of their school districts in order to develop a state-coordinated wireless network approach.<sup>22</sup> SEAs have played a critical role in connecting schools to high-speed broadband through statewide fiber networks.<sup>23</sup> Allowing SEAs and ESAs to leverage these existing infrastructure investments to build out complementary statewide wireless networks would quickly put the unlicensed EBS spectrum to work for students and teachers.

Although the Commission expresses concern that filing windows can be “misused and result in unjust enrichment with licenses being sold or leased to ineligible entities for profit” – this should not be a concern as long as the current EBS eligibility requirements are maintained and the Commission does not allow licensees to transfer their license to a non-EBS entity.<sup>24</sup>

The Commission also asks about the appropriate time frame for new local priority filing windows. Because the assignment of new EBS licenses has largely been frozen for almost 25 years, the Commission should allow ample time to conduct outreach to eligible EBS entities to (1) inform them of their eligibility for an EBS license, (2) communicate the potential for EBS to

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<sup>20</sup> EBS NPRM, para. 26.

<sup>21</sup> EBS NPRM, para. 40.

<sup>22</sup> EBS NPRM, para. 32. (In EBS NPRM discussion of the third local priority filing window for new educational entities, the Commission states, “Opening such a window would allow new educational entities that have never had the opportunity to benefit from holding and using 2.5 GHz spectrum (and that have a local presence in a particular area) the opportunity to access this spectrum for the first time.”)

<sup>23</sup> Fox, Christine and Rachel Jones. (2019). *State K-12 Broadband Leadership 2019: Driving Connectivity, Access and Student Success*. <https://www.setda.org/master/wp-content/uploads/2019/05/Broadband-State-Leadership-2019-Final-a.pdf>.

<sup>24</sup> EBS NPRM, para. 28.

provide connectivity for their students, families and community, and (3) provide enough time for these entities to conduct feasibility studies and assemble plans for leveraging the EBS licenses.

To support this outreach, the Department recommends that after rationalization, the Commission make available easy-to-access maps of available white space, searchable by address and overlaid with school district boundaries and anchor institution locations. This will facilitate transparency and enable eligible EBS entities to identify whether they are candidates for new EBS licenses. The Department also suggests that the Commission work with a broad group of organizations, including the Department, to conduct outreach to these eligible EBS entities.

**V. The Commission should adopt a “local presence” requirement and in order to ensure a local presence, should consider alternatives to having a physical or mailing address within a particular area.**

The Department supports the use of a local presence requirement to ensure that recipients of new licenses deeply understand local needs and have a strong interest in serving students; however, the use of a physical mailing address to meet the local presence requirement could create opportunities for misuse.

The Department supports the State Educational Technology Directors Association’s (SETDA) proposal that the definition of “local presence” be inclusive of the State Education Agencies (SEAs) and Educational Service Agencies (ESAs). SEAs and ESAs are inherently local given their statutory authority, scope of work, and mandate to serve all students in their jurisdictions.<sup>25</sup> A definition of “local presence” should also require demonstrated local service within a community.<sup>26</sup> In the event that an applicant is not a local school district or organization with an operational footprint in a specified service area, the Commission might consider requiring these applicants (e.g. national non-profits) to submit letters of support from their local collaborating anchor institutions to demonstrate their commitment to serving the local community.

**VI. The Commission should only consider the use of auctions once local priority filing windows have closed and should maintain the educational use requirement for any EBS license issued through auction.**

The Department supports the use of local priority filing windows for tribes and all EBS-eligible entities to issue remaining EBS licenses. For any unlicensed white space that remains once the local priority filing windows have closed, the Department supports the use of auctions to assign

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<sup>25</sup> State Educational Technology Directors Association (SETDA). “Comments of SETDA on Proposed Service Rules on the 2.5 GHz Band.” August 8, 2018, p. 6.

<https://ecfsapi.fcc.gov/file/108080885925165/SETDA%20EBS%20Comments%20Final%202018.pdf>.

<sup>26</sup> For example, the national Bridging the Gap program, which emphasizes partnerships with local non-profits and educational organizations, does not have a physical address in Salt Lake City, UT or Austin, TX but partnered with twelve local anchor institutions to provide access to computers and hotspots for qualified recipients. From Sorenson, Casey. “Comments of PCs for People in Response to Transforming the 2.5 GHz Band, Notice of Proposed Rulemaking.”

<https://ecfsapi.fcc.gov/file/10808097948192/Comments%20of%20PCs%20for%20People%20on%20EBS%20NPRM.pdf>.



these remaining EBS licenses. In such a scenario, the Department strongly suggests that the Commission provide ample time to conduct outreach to eligible EBS entities to (1) inform them of their eligibility for an EBS license, (2) communicate the potential for EBS to provide connectivity for their students, families and community, and (3) provide enough time for these entities to conduct feasibility studies and assemble plans for leveraging the EBS licenses. Further, the Department suggests that any EBS license issued through auction maintain the educational use requirement. For example, the Commission could choose to set aside a percent of the revenue generated from any EBS licenses issued through auction in a fund to support homework gap solutions or personalized professional development for teachers on the effective use of technology.

The Department does not support bypassing the local priority filing windows and going straight to auction as this will likely result in the exclusion of school districts and other educational entities that would be outbid by more well-resourced commercial providers. Auctions will limit the number of local applicants that secure new licenses and the likelihood that the spectrum will be developed while prioritizing local needs. This runs counter to previous statements from the Commission that local applicants, “convincingly demonstrated . . . to be the best authorities for evaluating their educational needs and the needs of others they propose to serve in their communities,” to “best understand the educational needs . . . of their communities,” and to “act most responsibly in designing and developing [2.5 GHz] systems.”<sup>27</sup>

Further, the Commission has identified several other spectrum bands for auction to commercial entities, and the Department believes the Commission should move to preserve the EBS spectrum for educational purposes. Maintaining current eligibility requirements and the local priority filing windows, while maintaining the educational use requirement if auctions are used ensures the educational and public interest nature of the EBS spectrum is preserved so that it continues to serve students and teachers.

## **VII. Conclusion**

The Department strongly encourages the Commission to maintain and modernize the current educational priority of the EBS spectrum by maintaining the current eligibility requirements for EBS licenses, modernizing the educational use requirement, and issuing new EBS licenses using local priority filing windows. During implementation of the local priority filing windows, the Department welcomes the opportunity to collaborate with the Commission and other organizations to conduct targeted outreach in order to highlight the opportunity for EBS spectrum to provide affordable broadband for schools and communities.

If the Commission decides to eliminate the educational nature of the Educational Broadband Service spectrum by removing the limits on which entities can hold EBS licenses and the educational use requirements or skipping the local priority filing windows to go straight to auction, the Department requests that the Commission delay its decision to allow additional time to examine the potential educational impact. The Department would also request an additional round of comment to refresh the record.

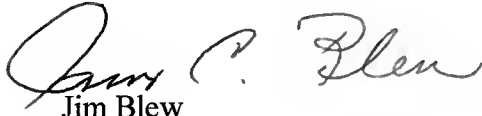
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<sup>27</sup> EBS NPRM, para. 26.



Thank you for your consideration in this important matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jim C. Blew".

Jim Blew

Assistant Secretary for Planning, Evaluation and Policy Development  
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